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EXAMINER	
BIRBACH, NAOMI L	
ART UNIT	PAPER NUMBER
1792	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,613	CLASSEN, EGBERT	
	Examiner	Art Unit	
	NAOMI BIRBACH	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09/21/2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 8-9, filed 9/21/2009, with respect to the rejection(s) of claim(s) 15, 18 and 19 under 35 U.S.C. 102 (b) over USPN 5,725,001 to Vogel and with respect to the rejections of claims 11, 15, 17 and 18 under 35 U.S.C. 102 (b) over USPN 2,968,172 to Johnson have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejection are made as discussed below.

2. Applicant's arguments filed 9/21/2009 with respect to the rejection of claims 11 and 12 under 35 U.S.C. 102 (b) over USPN 5,725,001 to Vogel have been fully considered but they are not persuasive. In response to applicant's argument that the system discloses by Vogel does not disclose supplying fresh water to the cleaning liquid in the event that the content of the washing-active substances is above a predetermined upper value, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The apparatus disclosed by Vogel is fully capable of supplying fresh water to the cleaning liquid in the event that the content of washing-active substances is above a predetermined value.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,725,001 to Vogel.

6. As to claim 11, Vogel discloses a dishwasher, which is an appliance operable to carry out at least one cleaning process using liquid, which includes a sump for dispensing a cleaning liquid and a wash compartment where an object to be cleaned comes into contact with washing liquid (Col. 2, lines 46-47, 65-66). The dishwasher also includes a dispensing device for supplying cleaning agent, i.e. detergent, to the cleaning liquid and a sensor in the form of a pH sensor, which measures the pH of the wash liquid during the cleaning process (Col. 1, lines 46-50). Detergent is understood to read on applicant's claimed cleaning agent as well as applicant's claimed washing-active substances, as these substances are present in detergent. The pH value is an indication of the type of detergent present; thereby it determines the content of washing-active substances in the cleaning liquid. In response to the value sensed, an appropriate wash program is run (Col. 1, lines 59-63). If the sensed pH value is lower than a predetermined value, indicating that the sensed content of washing-active substances is low, additional cleaning agent is dispensed into the cleaning liquid (Col. 2,

lines 1-6). If the sensed pH value is above a predetermined value, indicating that the content of washing-active substances is high, an extra rinse cycle with fresh water is run by the program control (Col. 2, lines 20-31). It is well settled that a claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). The system disclosed by Vogel is fully capable of supplying fresh water to the cleaning liquid during the cleaning process.

7. As to claim 12, Vogel further discloses that the system for supplying cleaning agent to the cleaning liquid is regulated as a function of the content of washing-active substances in the cleaning liquid determined by the sensor by means of an electronic control (Col. 1, lines 46-50, 57-60).

8. Claims 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2052251 to Buttner.

9. As to claim 11, Buttner discloses an apparatus operable to carry out at least one cleaning process using cleaning liquid (Page 1, lines 5-10). The apparatus comprises an assembly for placing into contact with one another a cleaning liquid and at least one item to be cleaned (Page 1, lines 114-117). A system is provided for controlling the metering of at least one additive, such as a cleaning agent, into the cleaning liquid (Page 1, lines 6-10, 90-94). The system includes a sensor that determines the content of washing-active substances in the cleaning liquid during the cleaning process by

measuring the pH, surface tension, or electrical conductivity of the cleaning liquid (Page 1, lines 95-99, 114-129; Page 2, lines 1-50). Buttner teaches that when the sensed content of washing-active substances is below a predetermined value, additional cleaning agent is metered to the cleaning liquid, so there is inherently a dosing device (Page 2, lines 27-40, 85-90, 102-107). Buttner teaches that the control means controls the supply of water to the machine based on the measurement of the washing-active substances in the cleaning liquid, so it is fully capable of supplying fresh water to the cleaning liquid in the event that the content of washing-active substances is above a predetermined upper value (Page 1, lines 6-10, 82-100).

10. As to claim 12, Buttner further discloses that the system is regulated as a function of the content of washing-active substances in the cleaning liquid determined by the sensor by means of an electronic control (Page 1, 82-100).

11. As to claim 13, Buttner further discloses that the sensor is a tensiometer that determines the surface tension of the cleaning liquid, and accordingly the tenside content, by means of a bubble pressure method (Page 1, lines 115-129; Page 2, lines 1-20).

12. As to claim 14, applicant is reminded that a claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). The tensiometer disclosed by Buttner is

fully capable of being surrounded by liquid in a cleaning process (Page 2, lines 4-7, 46-49).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 15-19, are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,725,001 to Vogel.

15. As to claim 15, Vogel discloses a method for operating a dishwasher, which is an appliance operable to carry out at least one cleaning process using cleaning liquid. The method comprises determining the content of washing active substances in a cleaning liquid supplied by the cleaning agent, i.e. detergent, via a dispensing system by measuring the pH value of the cleaning liquid (Col. 1, lines 46-50), thereby determining the type of detergent supplied by the dispensing device (Col. 1, lines 55-60). Detergent is understood to read on applicant's claimed cleaning agent as well as applicant's claimed washing-active substances, as these substances are present in detergent. Where the pH value is lower than a predetermined value, indicating that the content of washing-active substances is low, additional cleaning agent is supplied into the cleaning liquid (Col. 2, lines 1-6).

16. Vogel discloses that where the pH value is higher than a predetermined value, indicating that the content of washing-active substances is high, an extra rinse cycle with fresh water is run by the program control (Col. 2, lines 20-31). This extra-rinse cycle is run in order to partially neutralize any residual alkalinity that may remain on the dishes, which could cause discomfort to especially sensitive people (Col. 2, lines 20-30). While Vogel does not expressly disclose supplying fresh water to the cleaning liquid during the cleaning process in the event that the content of washing-active substances is above a predetermined upper value, it would have been obvious to one of ordinary skill in the art to instead try supplying the fresh water to the cleaning liquid during the cleaning process in order to correct a potential overdosing of cleaning agent with a reasonable expectation of success (MPEP 2143 E). It would have been desirable to add the fresh water to the cleaning liquid in order to eliminate the need for an extra rinse cycle, thereby conserving water by using less fresh water than would be required for an additional cycle. In addition, the selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946).

17. As to claim 16, Vogel further discloses that the content of washing-active substances in the cleaning liquid is determined by continuously determining the content of washing active substances in the cleaning liquid (Col. 1, lines 57-60). The continuous monitoring of the pH value of the wash liquid indicates the content of washing active substances in the detergent in the cleaning liquid (Col. 1, lines 57-67).

18. As to claim 17, Vogel further discloses that the content of washing-active substances in the cleaning liquid is determined by electronic means (Col. 1, lines 46-52).

19. As to claim 18, Vogel further discloses that a pH sensor is used to determine the content of detergent in the cleaning liquid (Col. 1, lines 37-40).

20. As to claim 19, Vogel teaches that at least part of the cleaning process may be repeated depending on the content of washing-active substances in the cleaning liquid, by providing an extra rinse cycle if the pH is too high (Col. 2, lines 20-31).

21. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,725,001 to Vogel in view of GB 2052251 to Buttner et al.

22. Vogel is relied upon as discussed above with respect to the rejection of claim 18.

23. As to claim 20, Vogel does not expressly disclose that a selected one of omission of at least part of the cleaning process and interruption of at least part of the cleaning process is undertaken depending on the content of the washing-active substances in the cleaning liquid determined by the sensor.

24. Buttner discloses that a rinsing operation originally programmed to perform five rinsing cycles can be stopped after the fourth rinsing cycle if the optimum concentration of washing agent is sensed (Page 2, lines 51-54, 61-67), which reads on applicant's claimed omission of at least part of the cleaning process.

25. It would have been obvious to one of ordinary skill in the art to modify the method as taught by Vogel to include the omission of at least part of the cleaning process as

taught by Buttner. One of ordinary skill would have been motivated to omit part of the cleaning process to create a method of operating washing apparatus which is energy-saving and environmentally compatible (Page 1, lines 75-80).

26. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2052251 to Buttner et al.

27. As to claim 15, Buttner discloses a method for operating an appliance operable to carry out at least one cleaning process using a cleaning liquid (Page 1, lines 5-10). The method comprises determining the content in a cleaning liquid of washing-active substances that are supplied thereinto via the supply of cleaning agent into the cleaning liquid by a cleaning agent supply system (Page 1, lines 82-100, 114-129; Page 2, lines 21-35, 50-60). In the event that the content of washing-active substances is determined to be below a predetermined value, additional cleaning agent is supplied to the cleaning liquid (Page 1, lines 82-100; Page 2, lines 21-35, 50-60, and 96-107).

28. Buttner teaches that the controller uses the measured content of washing-active substances in the liquid to control the volume of water supplied to the washing machine and the number of changes of the water (Page 1, lines 82-100 Page 2, lines 21-35, 96-107). It is reasonably expected that this water is fresh water. While Buttner does not expressly disclose that this water is supplied in the event that the content of washing-active substances is determined to be above a predetermined upper value, it would have been obvious to one of ordinary skill to supply additional water to the cleaning liquid to correct a potential overdosing of cleaning agent with a reasonable expectation

of success (MPEP 2143 E). In addition, the selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946).

29. As to claim 16, Buttner further discloses that the addition of cleaning agent can be stopped once a pre-determined surface tension, which is indicative of the content of washing active-substances, of the washing liquid has been reached, so it is reasonably expected that the cleaning liquid is continuously sensed or sensed at short time intervals (Page 1, lines 114-129; Page 2, lines 8-14, 46-60). Further, it would have been obvious to one of ordinary skill in the art to modify censoring time intervals through routine experimentation in order to optimize cleaning (MPEP 2144.05 II).

30. As to claim 17, Buttner further discloses that the content of washing-active substances is determined via electronic means (Page 2, lines 97-107).

31. As to claim 18, Buttner further discloses that determining the content of washing-active substances in the cleaning liquid is performed with a sensor (Page 2, lines 108-113).

32. As to claim 19, Buttner further discloses that depending on the content of washing-active substances in the cleaning liquid determined via a sensor, the number of changes of water, which is part of the cleaning process, is determined, meaning that at least part of the cleaning process may be repeated (Page 2, lines 9-20, 115-121).

33. As to claim 20, Buttner further discloses that the cleaning process may be stopped once a certain surface tension, corresponding to a washing agent concentration, is reached. For example, a fifth rinsing operation, which is a part of the

cleaning process normally performed, may be omitted depending on the content of washing active substances in the cleaning liquid determined by the sensor (Page 2, lines 8-20).

34. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,725,001 to Vogel as applied to claim 11 above, and further in view of USPN 4,509,543 to Livingston et al.

35. Vogel is relied upon as discussed above with respect to the rejection of claim 11.

36. As to claims 21 and 22, Vogel further discloses that the operator can influence the dishwasher program by selecting a certain function or extra functions, such as to move the pH into a higher or lower range for different degrees of dirt (Col. 1, lines 42-44; Col. 2, lines 10-19). The pH is determined by a sensor and is an indication of the type of detergent present; thereby it determines the content of washing-active substances in the cleaning liquid (Col. 1, lines 46-50). Vogel does not expressly disclose that the appliance comprises a device for displaying values related to the content of washing-active substances in the cleaning liquid determined by the sensor, whereby an operator can add cleaning agents during the cleaning operation the basis of an indicated concentration or that the display device includes a component for generating an acoustic signal.

37. Livingston discloses a monitor (device for displaying values) and controller that is connected to probes (sensor) which determine the amount of detergent and display values to indicate if the detergent content is low (Col. 3, lines 55-65' Col. 4, lines 14-19).

Detergent content is a value relating to the content of washing-active substances in the cleaning liquid because detergent contains washing-active substances. If the concentration of the detergent is too low, an operator can add cleaning agents during the cleaning operation (Col. 7, lines 63-68). The display device further includes a component for generating an acoustic signal (Col. 4, lines 14-26; 39-41)

38. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the appliance taught by Vogel to include a device for displaying values relating to the detergent condition of the dishwasher as taught by Livingston so that an operator can be made aware of the condition of the washing-active substances so that modifications can be made if necessary. One of ordinary skill would have been motivated to include a component for generating an acoustic signal so that an operator can be notified to attend to the dishwasher, even when not in close proximity.

39. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2052251 to Buttner et al. as applied to claim 11 above, and further in view of USPN 4,509,543 to Livingston et al.

40. Buttner is relied upon as discussed above with respect to the rejection of claim 11.

41. As to claims 21 and 22, Buttner does not expressly disclose that the appliance comprises a device for displaying values related to the content of washing-active substances in the cleaning liquid determined by the sensor, whereby an operator can add cleaning agents during the cleaning operation the basis of an indicated

concentration or that the display device includes a component for generating an acoustic signal.

42. Livingston discloses a monitor (device for displaying values) and controller that is connected to probes (sensor) which determine the amount of detergent and display values to indicate if the detergent content is low (Col. 3, lines 55-65' Col. 4, lines 14-19). Detergent content is a value relating to the content of washing-active substances in the cleaning liquid because detergent contains washing-active substances. If the concentration of the detergent is too low, an operator can add cleaning agents during the cleaning operation (Col. 7, lines 63-68). The display device further includes a component for generating an acoustic signal (Col. 4, lines 14-26; 39-41).

43. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the appliance taught by Buttner to include a device for displaying values relating to the detergent condition of the dishwasher as taught by Livingston so that an operator can be made aware of the condition of the washing-active substances so that modifications can be made if necessary. One of ordinary skill would have been motivated to include a component for generating an acoustic signal so that an operator can be notified to attend to the dishwasher, even when not in close proximity.

Conclusion

44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAOMI BIRBACH whose telephone number is

(571)270-7367. The examiner can normally be reached on Monday-Friday, 8:00am-5:30pm.

45. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on 571-272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

46. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. B./
Naomi Birbach
Examiner, Art Unit 1792
9/29/09
/Michael Kornakov/
Supervisory Patent Examiner, Art Unit 1792